

Amendment and Response to First Office Action
Docket No. 018.0304.US.UTL

REMARKS

Claims 1-21 are pending. Claims 1, 3, 4, 8-11, 13-17, and 21 have been amended. Claim 12 has been canceled. Claims 1-11 and 13-21 remain in the application. No new matter has been entered.

5 Claims 3, 4, 9-16, and 21 stand rejected under 35 U.S.C. §112, second paragraph, for indefiniteness. Claim 12 has been canceled. Claims 3, 4, 9-11, 13-16, and 21 have been amended per the suggestions provided in the Office action. No new matter has been entered. Withdrawal of the rejection under 35 U.S.C. 112, second paragraph, is respectfully requested.

10 Claims 1, 3-10, 12, and 14-21 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,906,983, to Williams et al. ("Williams") in view of Atmel 8-bit AVR® Microcontroller With 1K Byte Flash: ATtiny11/ATtiny12 specification ("Atmel"). A claim is anticipated under 35 U.S.C. §102(e) only if each and every element as set forth in the claim is found,
15 either expressly or inherently described, in a single prior art reference. MPEP §2131. Applicant traverses the rejection.

Williams and Atmel disclose an earplug alarm that includes a base station, which can be implemented using software on a personal computer (Col. 5, lines 45-55). An earpiece interface supports connection of power and signals from the
20 earpiece to the base station and a controller, such as Atmel ATtiny 12 microcontroller, handles all interface and control functions of the earpiece (Col. 5, line 66-Col. 6, line 7; Col. 9, lines 16-17). Non-volatile storage is provided by the microcontroller, which only includes a modest amount of onboard program and data memory (Col. 9, lines 42-45; Atmel, pp.1, 8, 47-48). The volume and tone of
25 the alarm can be controlled and specific sounds, such as a pleasant chirp sound with a low repetition rate, can be produced via a "sounder" (Col. 3, lines 12-22; Col. 6, lines 13-15; Col. 12, lines 1-3). A base station connector is implemented as a stereo mini plug, which serves the purposes of the ear piece interface, disconnect and power, and signal separation (Col. 6, lines 15-20; Col. 8, line 66-
30 Col. 9, line 11).

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Independent Claim 1 has been amended to recite a memory provided *separately* within the audible alarm circuit to store a user-settable time interval and at least one programmable alarm tone; a *leadless* interface to *receive* the user-settable time interval and the at least one programmable alarm tone from an external source and to *store* the user-settable time interval and the at least one programmable alarm tone into the memory; a clock circuit to commence timing upon activation of the user-settable time interval; and an alarm circuit to *retrieve* the at least one programmable alarm tone from the memory and to *generate* the at least one programmable alarm tone responsive to an expiry of the user-settable time interval (emphasis added).

Independent Claim 8 has been amended to recite means for storing a user-settable time interval and at least one programmable alarm tone, wherein the storing means is provided *separately* within the executing means; *leadless* means for *receiving* the user-settable time interval and the at least one programmable alarm tone from an external source and means for *saving* the user-settable time interval and the at least one programmable alarm tone into storing means; means for commencing timing upon activation of the user-settable time interval; and means for *retrieving* the user-settable time interval and the at least one programmable alarm tone from the storing means and means for *generating* the at least one programmable alarm tone responsive to an expiry of the user-settable time interval (emphasis added).

Independent Claim 9 has been amended to recite a memory provided *separately* within the audible alarm circuit to maintain a user-settable time interval and at least one programmable alarm tone; a *leadless* interface to provide a programming channel; a countdown timer to commence timing upon activation of the user-settable time interval; an alarm circuit to *retrieve* the user-settable time interval and the at least one programmable alarm tone from the memory and to *generate* the at least one programmable alarm tone responsive to an expiry of the user-settable time interval; a power supply to provide power to the memory and the countdown timer and comprising a rechargeable power cell and a *leadless*

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recharging interface included as part of the leadless interface; and an external programmer removably interfaced to the removable ear plug via the programming channel through the leadless interface and the recharging interface to respectively receive the user-settable time interval and the at least one programmable alarm tone and the power to recharge to the rechargeable power cell. No new matter has been entered (emphasis added).

Independent Claim 17 has been amended to recite situating an electronic ear plug relative to a programming interface removably disposed on an external programmer via a *leadless* interface, the electronic ear plug comprising a removable ear plug shaped on a distal end to be received by an ear and integrating an audible alarm circuit on a proximal end; programming via the programming interface a user-settable time interval and specifying at least one programmable alarm tone; *downloading* the user-settable time interval and the at least one programmable alarm tone into a memory provided *separately* within the audible alarm circuit and maintained in the electronic ear plug; and placing the electronic ear plug in an ear, wherein the audible alarm circuit provides a clock circuit that commences timing upon activation of the user-settable time interval and further provides an tone circuit that *retrieves* the at least one programmable alarm tone from the memory and *generates* the at least one programmable alarm tone responsive to an expiry of the user-settable time interval (emphasis added).

No new matter has been entered. Support for the amendments to Claims 1, 8, 9, and 17 can be found in the specification on page 4, lines 28-30; page 5, line 11-12 and 21-24; and page 6, lines 13-14, 19-20, and 25-30. A leadless interface is neither taught nor suggested by Williams. Rather, Williams discloses an interface connected through a set of wired mini plug leads and cannot be configured to interface an ear plug and, for instance, an external source, through direct contact. In addition, a separate memory is neither taught nor suggested by Williams, which discloses a memory that is integral to the microcontroller. Finally, Williams fails to teach or suggest retrieving or download programmable alarm tones into a memory of an ear plug and generating the retrieved

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programmable alarm tones. Rather, Williams only receives a delta-time that indicates a delay count and no downloadable alarm tones.

Accordingly, *prima facie* anticipation is not present for independent Claims 1, 8, 9, and 17. Claims 3 and 4 are dependent on Claim 1 and are patentable for the above-stated reasons, and as further distinguished by the limitations therein. Claim 12 has been canceled. Claims 10, 11, and 13-16 are dependent on Claim 9 and are patentable for the above-stated reasons, and as further distinguished by the limitations therein. Claim 21 is dependent on Claim 17 and is patentable for the above-stated reasons, and as further distinguished by the limitations therein. Withdrawal of the rejection under 35 U.S.C. §102(e) is respectfully requested.

Claim 2 stands rejected under 35 U.S.C. §103(a) as being obvious over Williams in view of Atmel and further in view of U.S. Patent No. 6,253,871, to Aceti ("Aceti"). Applicant traverses the rejection.

Claim 2 is dependent on Claim 1 and is patentable for the above-stated reasons with reference to the rejection for anticipation, and as further distinguished by the limitations therein. Withdrawal of the rejection under 35 U.S.C. 103(a) is respectfully requested.

Claim 11 stands rejected under 35 U.S.C. §103(a) as being obvious over Williams in view of Atmel and further in view of U.S. Patent No. 5,253,300, to Knapp ("Knapp"). Applicant traverses the rejection.

Claim 11 is dependent on Claim 9 and is patentable for the above-stated reasons with reference to the rejection for anticipation, and as further distinguished by the limitations therein. Withdrawal of the rejection under 35 U.S.C. 103(a) is respectfully requested.

Claim 13 stands rejected under 35 U.S.C. §103(a) as being obvious over Williams in view of Atmel and further in view of U.S. Patent No. 5,566,226, to Mizoguchi et al. ("Mizogushi"). Applicant traverses the rejection.

Claim 13 is dependent on Claim 9 and is patentable for the above-stated reasons with reference to the rejection for anticipation, and as further

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distinguished by the limitations therein. Withdrawal of the rejection under 35
U.S.C. 103(a) is respectfully requested.

The prior art made of record and not relied upon has been reviewed by the
applicant and is considered to be no more pertinent than the prior art references
5 already applied.

Claims 1-11 and 13-21 are believed to be in condition for allowance.
Entry of the foregoing amendments is requested and a Notice of Allowance is
earnestly solicited. Please contact the undersigned at (206) 381-3900 regarding
any questions or concerns associated with the present matter.

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Respectfully submitted,

Dated: May 1, 2006

By: Patrick J.S. Inouye, Esq.
Reg. No. 40,297

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Law Offices of Patrick J.S. Inouye
810 Third Avenue, Suite 258
Seattle, WA 98104Telephone: (206) 381-3900
Facsimile: (206) 381-3999

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